

DELAWARE VALLEY SCHOOL DISTRICT

Curriculum Map

Marking Period One 45 days

Understanding of:

- summarizing and classifying data, categorical and quantifiable, and with appropriate graphs and statistical summaries.
- Comparing and describing distributions, and recognize association between variables.
- Understand probability as long run relative frequency and apply it in problem solving and simulation and in justifying inference-based conclusions.
- Beginnings of geometry via inductive reasoning, and the need for a deductive approach;
- Logic, basics of Boolean algebra and proof, syllogisms;
- Deductive structure: postulates, theorems, basis of Euclidean Geometry;

Marking Period Two 45 days

Understanding of:

- Parallel lines and angles; indirect and direct proof, extension to triangle angle-sum
- Triangle classification, congruence and proof;
- Applications of congruent triangles.
- Basic relationships among a triangle's sides and angles;
- Triangles and centers: points of concurrence;
- Polygons, diagonals, interior and exterior angles, and measurement;
- Quadrilaterals, definitions and properties;

Marking Period Three 45 days

Understanding of:

- Area, development of formulas for polygons and application in problem solving;
- Proportion and use in similar figures;
- Modeling real-world problems with proportion;
- Justification of similarity of polygons;
- Transformations and symmetries.
- Fibonacci and the Golden Ratio

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Marking Period Four 45 days

Understanding of:

- Right triangles and similarity
- The Pythagorean Theorem and proofs;
- Pythagorean triples and special right triangles;
- Right-triangle trigonometry, relationships, and problem-solving.
- Circles, chords, radii, and relationships
- Arcs, and angles;
- Tangents and secants, common tangents
- Circles, circumference, and area;
- Sectors, arc length and area;
- Geometric solids and characteristics: vertices, edges, faces, classification;
- Volume and surface area: rectangular solids, prisms, pyramids, spheres;
- Ratio of similitude, area, volume in similar figures.